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(54) Title: MODIFIED MACROMOLECULES AND METHODS OF MAKING AND USING THEREOF

(57) Abstract: Described herein are compounds such as macromolecules that have been modified in order to facilitate crosslinking by introduction of at least one hydrazide-reactive group and /or aminoxy-reactive group, and methods of making and using thereof for scar-free wound healing, for delivering bioactive agents or living cells, for preventing adhesion after a surgical procedure or for bone and cartilage repair. The macromolecule can be an oligonucleotide, a nucleic acid, a polypeptide, a lipid, a glycoprotein, a glycolipid, a polysaccharide, a protein or a synthetic polymer, preferably a glycosaminoglycan like hyaluronan.